

6BF5

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BEAM POWER AMPLIFIER

MINIATURE TYPE

GENERAL DATA

Electrical:

Heater for Unipotential Cathode:

Voltage	6.3	ac or dc volts
Current	1.2	amp

Direct Interelectrode Cap. (Approx.; no external shield):

As Beam Power Amplifier:

Grid No.1 to Plate	0.65	μμf
Input	14	μμf
Ouput	6	μμf

Characteristics as Beam Power Amplifier:

See AMPLIFIER--Class A_1

Characteristics as Triode-Connected Amplifier - Class A_1:

(Grid No.2 connected to plate)

Plate Voltage	225	volts
Grid Voltage	-30	volts
Amplification Factor	6.7	
Plate Resistance	2500	ohms
Transconductance	2700	μmhos
Plate Current	10	ma
Grid Voltage (Approx.) for plate current of 0.5 ma	-40	volts

Mechanical:

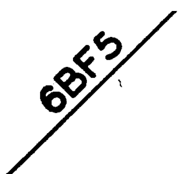
Mounting Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Maximum Diameter	3/4"
Bulb	T-5-1/2
Base	Small-Button Miniature 7-Pin (JETEC No.E7-1)
Basing Designation for BOTTOM VIEW	7BZ

Pin 1 - Grid No.1
Pin 2 - Cathode, Grid No.3
Pin 3 - Heater
Pin 4 - Heater
Pin 5 - Plate
Pin 6 - Grid No.2
Pin 7 - Grid No.1

AMPLIFIER--Class A_1

Maximum Ratings, *Design - Center Values:*

PLATE VOLTAGE	250 max.	volts
GRID-No.2 (SCREEN) VOLTAGE	117 max.	volts
PLATE DISSIPATION	5.5 max.	watts
GRID-No.2 INPUT	1.25 max.	watts





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PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200■ max.	volts

Typical Operation and Characteristics:

Plate Voltage	110	volts
Grid-No.2 (Screen) Voltage	110	volts
Grid-No.1 (Control-Grid) Voltage	-7.5	volts
Peak AF Grid-No.1 Voltage	7.5	volts
Zero-Signal Plate Current	36	ma
Maximum-Signal Plate Current	39	ma
Zero-Signal Grid-No.2 Current	4	ma
Maximum-Signal Grid-No.2 Current	10.5	ma
Plate Resistance (Approx.)	12000	ohms
Transconductance	7500	μmhos
Plate Load Resistance	2500	ohms
Total Harmonic Distortion	10	per cent
Maximum-Signal Power Output	1.9	watts

VERTICAL DEFLECTION AMPLIFIER

Triode Connected--Grid No. 2 Connected to Plate

Maximum Ratings, *Design-Center Values Except as Noted:*

For operation in a 525-line, 30 frame system●

DC PLATE VOLTAGE	250 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE†	900○ max.	volts
CATHODE CURRENT:		
DC	40 max.	ma
Peak	120 max.	ma
PLATE DISSIPATION††	5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200■ max.	volts

Maximum Circuit Values:

Grid-No.1 Circuit Resistance:		
For cathode-bias operation	2.2 max.	megohms

■ The dc component must not exceed 100 volts.

● As described in "Standards of Good Engineering Practice for Television Broadcast Stations", Federal Communications Commission.

† The duration of the voltage pulse must not exceed 7 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 7 per cent of one vertical scanning cycle is 1.2 milliseconds.

○ Under no circumstances should this absolute value be exceeded.

†† An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY